



Declaration, Power of Attorney and Petition - Original Application

As a below named inventor, I hereby declare that: My residence, mailing address and citizenship, are stated below next to my name, I believe I am the original, first and sole inventor (*if only one name is listed below*) or an original, first and joint inventor (*if plural names are listed below*) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Phase Modulator with Terahertz Optical Bandwidth Formed by Multi-Layered Dielectric Stack

the specification of which ☒ is attached hereto, ☐ was filed on (Date) _____

as Application Serial No. _____ and was amended (Date) _____.

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Patent and Trademark Office all information which is known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

_____, the status of which is ☐ patented, ☐ pending, ☐ abandoned.
(Serial No.) (Filing Date)

I hereby claim priority benefits under Title 35, United States Code §119(e) of any United States Provisional Applications listed below:

_____, the status of which is pending.
(Provisional Serial No.) (Filing Date)

POWER OF ATTORNEY: I hereby appoint the following attorney(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Registered practitioner(s) at Customer Number _____, OR

☒ Registered practitioner(s) listed below:

<u>James J. McGroary</u>	<u>38,960</u>	<u>Jerry L. Seemann</u>	<u>33,454</u>
(Name)	(Reg. No.)	(Name)	(Reg. No.)
<u>Gary G. Borda</u>	<u>35,455</u>	<u>John G. Mannix</u>	<u>27,254</u>
(Name)	(Reg. No.)	(Name)	(Reg. No.)
<u>Alan J. Kennedy</u>	<u>28,625</u>		
(Name)	(Reg. No.)	(Name)	(Reg. No.)

ADDRESS ALL CORRESPONDENCE TO:

☐ Customer Number _____, OR

☒ Correspondence Address listed below:

Name: James J. McGroary
Address: NASA/Marshall Space Flight Center
LS01/Office of Chief Counsel
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DIRECT TELEPHONE CALLS TO:

Telephone (Complete number to be dialed from USPTO):
(256) 544-0013

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on the date of signature below.

Date: 6-6-01 Signature: Lisa R. Hughes

MFS-31565-1
(NASA Case No.)

Express Mail EK828574598US

Further, as a named inventor, I certify that the Government of the United States of America, as represented by the Administrator of the National Aeronautics and Space Administration has ☒ an assignment in, or ☐ license to the invention set forth in this application and has the irrevocable right to prosecute this application and to receive the patent.

Wherefore, I pray that Letters Patent be granted to me for this invention or discovery described and claimed in the foregoing specification a claims, and I hereby subscribe my name to the foregoing specification, claims, power of attorney and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001; and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

FULL NAME OF INVENTOR	LAST Keys	FIRST Andrew	MIDDLE OR INITIAL S.
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SIGNATURE <i>Andrew A. Keys</i>			DATE 5 June 2001

FULL NAME OF INVENTOR	LAST Fork	FIRST Richard	MIDDLE OR INITIAL L
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MAILING ADDRESS	STREET NO. AND NAME 106 Canterbury Circle	CITY AND STATE (OR COUNTRY) Madison, AL	ZIP CODE 35758
SIGNATURE <i>Richard L. Fork</i>			DATE June 05, 2001

FULL NAME OF INVENTOR	LAST	FIRST	MIDDLE OR INITIAL
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SIGNATURE			DATE

FULL NAME OF INVENTOR	LAST	FIRST	MIDDLE OR INITIAL
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MAILING ADDRESS	STREET NO. AND NAME	CITY AND STATE (OR COUNTRY)	ZIP CODE
SIGNATURE			DATE

RECORDATION COVER SHEET FOR PATENTS

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Attention: Assignment Division

Please record the attached original documents or copy thereof.

- (1) **Conveying Party(ies):** Andrew S. Keys
- (2) **Receiving Party(ies):** National Aeronautics and Space Administration
Washington, D.C. 20546
- (3) **Nature of Conveyance:** Assignment
Execution Date: June 5, 2001
- (4) **Application Number:** NASA Case No.: MFS-31565-1
Application Title: Phase Modulator with Terahertz Optical Bandwidth Formed by
Multi-Layered Dielectric Stack

This document is being filed together with a new patent application for letters patent. The execution date of the application is: June 5, 2001

- (5) **Name and address of party to whom correspondence concerning document should be mailed:**

National Aeronautics and Space Administration
Attn: LS01/James J. McGroary
Marshall Space Flight Center, AL 35812

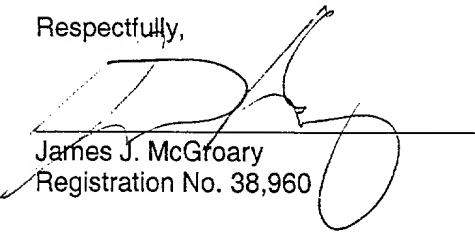
- (6) **Total number of applications involved:** 1(One)

(7) **Total fee (37 CFR 3.41):** \$40.00. Authorized to be charged to deposit account.

- (8) **Deposit account number:** 14-0116

- (9) To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. This cover sheet consists of one page.

Respectfully,


James J. McGroary
Registration No. 38,960

6/6/01
(Date)

Enclosure(s): NASA FORM 430
ADDITIONAL COPY OF THIS FORM

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on the date of signature below.

Date: 6-6-01

Signature: Lisa R. Hughes